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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,231	01/21/2004	Kia Silverbrook	MPA27US	2209
24011	7590	05/23/2006	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA			GOLDBERG, BRIAN J	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/760,231		SILVERBROOK ET AL.	
	Examiner		Art Unit	
	Brian Goldberg		2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 2/10/06. These drawings are acceptable.

Terminal Disclaimer

2. The terminal disclaimer filed on 2/10/06 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application number 10/760,232 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook et al. (US 6439908).
3. Regarding claim 1, Silverbrook et al. disclose "at least one printhead module (10 of Fig 2) comprising at least two printhead integrated circuits (18 of Fig 4), each of which has nozzles formed therein for delivering printing fluid onto the surface of print media (col 3 ln 45-47), a support member (16 of Fig 7) supporting and carrying the printing fluid for the at least two printhead integrated circuits, and an electrical connector (48 of Fig 8) for connecting electrical signals to the at least two printhead integrated circuits; drive electronics incorporating at least two controllers each arranged on a

Art Unit: 2861

printed circuit board so as to control operation of at least one of the at least two printhead integrated circuits (col 3 ln 48-50 and ln 59-65); a casing (14 of Fig 2) comprising a support frame (64, 94, lower parts of 76 and 32 of Fig 2) supporting the at least one printhead module and at least two mounting elements (28 of Fig 2) arranged in abutting relationship along a longitudinal direction of the casing (see Fig 2), each of the printed circuits boards (22 of Fig 8) being removably supported by at least one of the two or more mounting elements (28 of Fig 2); and an electrical connecting member (98, 56 of Fig 14) comprising a non-conductive material (96 of Fig 14) clad with conductive strips (58 and 60 of Fig 14) arranged between the abutting mounting elements (see Fig 3) so that the conductive strips are positioned to overlay a series of spaced connection strips (102 and 106 of Fig 3) at edge regions of each of the individual printed circuit boards (54 of Fig 3)."

4. Regarding claim 2, Silverbrook et al. disclose "wherein each of the mounting elements comprises side regions (46 of Fig 5) having raised and recessed portions arranged so that the recessed portions of the abutting mounting elements form a recess into which the electrical connecting member (56, 98 of Fig 14) can be placed (col 2 ln 54-58)."

5. Regarding claim 3, Silverbrook et al. disclose "wherein the electrical connecting member is arranged so as to fit within the recess formed between abutting mounting elements (see Fig 3)."

6. Regarding claim 4, Silverbrook et al. disclose "wherein there is twice as many conductive strips (58 and 60 of Fig 14) as there are connection strips of the printed

Art Unit: 2861

circuit boards (28 of Fig 3), whereby each connection strip of the printed circuit board will engage with at least one of the two adjacent conductive strips (see Fig 3)."

7. Regarding claim 5, Silverbrook et al. disclose "wherein one printed circuit board having one controller (col 3 ln 49-50 and 59-65) thereon is supported by more than one mounting element (28, 26, 24 of Fig 3)."

8. Regarding claim 6, Silverbrook et al. disclose "the connection strips of the printed circuit board supported by the mounting element at one end of the support frame are connected to a data input (col 3 ln 59-64); and the connection strips of the printed circuit board supported by the mounting element at the other end of the support frame are terminated (see Fig 3)."

Regarding claim 7, Silverbrook et al. disclose "the at least one printhead module (10 of Fig 2) is formed as a unitary arrangement of the at least two printhead integrated circuits (18 of Fig 4), the support member (16 of Fig 7), the electrical connector (48 of Fig 8), and at least two fluid distribution members (26 of Fig 7) each mounting one of the at least two printhead integrated circuits to the support member; and the support member has at least one longitudinally extending channel (80 of Fig 7) for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures (42 of Fig 7) extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (see Fig 7 and col 3 ln 45-47)."

Response to Arguments

9. Applicant's arguments filed 3/20/06 have been fully considered but they are not persuasive.

10. Regarding claim 1, the current application contains integrated printhead circuits 51 on tiles 50 that are arranged on top of the fluid channel member 40, which extends the length of the printhead as can be seen in figure 4A. As stated in paragraph [0090] of the present application, "as illustrated in Figs. 1 and 2, sixteen printhead tiles 50 [each with one integrated printhead circuit 51 as seen in figure 5A] are provided in the printhead module 30." In figures 1 and 2, the arrow of 30 is pointing to a single printhead tile/integrated circuit, and the figures also show that there are sixteen printhead tile/integrated circuits comprising the entire length of the printhead.

Therefore, if sixteen printhead tiles are provided in the printhead module as stated, then the module must be considered the entire length of the apparatus shown in figures 1 and 2, with one fluid channel member 40 (or a series of sixteen interconnected fluid channel members) containing sixteen sets of outlet ports 42 as shown in figure 4A, and sixteen printhead tiles/integrated circuits on the upper surface of that one fluid channel member (or series of interconnected fluid channel members). Hence, either each printhead module (indicated by the arrow of 30 in figures 1 and 2) has only one printhead tile/integrated circuit, which contradicts the claim, or the printhead module is to be taken to mean the entire length shown in figures 1 and 2 where the module has at least two printhead tiles/integrated circuits and is shown in the figures with sixteen printhead tiles/integrated circuits.

Art Unit: 2861

11. A similar analysis can be applied to the cited reference, and the printhead module 10 can be taken to mean the entire length shown in figure 2 to satisfy the claimed printhead module of the instant application.

12. In applicant's remarks, "a number of print engine controller integrated circuits" are referenced as 92, 100; however 92 is a lug member and 100 is the only controller, thus the only way that at least two controllers are included is if the module is the entire length as described above containing at least two controllers 100, one for each printhead tile/integrated circuit. In describing the Memjet chip, Silverbrook et al. disclose that it contains a drive transistor and that sixteen data connections drive the chip (see col 3 ln 48-49 as cited above), which constitutes drive electronics. Also, the tab film and flexible printed circuit board combination provides data and power to the chip as cited above (col 3 ln 59-65), which also constitutes a control. Further, the module as interpreted by the analysis above to be the full length contains at least two controllers. Also, contrary to the applicant's contention, Silverbrook et al. do not disclose anywhere in the specification that the connector 66 connects to an external controller.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2861

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Goldberg *BG*
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May 17, 2006

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